## **CLAIMS**

- 1 1. A sensor array system for detecting the position of an object or energy source,
- 2 comprising:
- a plurality of sensors, each sensor having a limited field of view and being
- 4 capable of detecting an object or energy source that is positioned within its field of
- 5 view, wherein the fields of view of at least some of the sensors overlap the fields of
- 6 view of other sensors, the overlapping fields of view defining unique spatial regions;
- 7 and
- a data acquisition system, operatively connected to said plurality of sensors,
- 9 for determining which sensors simultaneously detect an object or energy source,
- thereby determining the unique spatial region in which the object or energy source is
- 11 located.
- 1 2. The sensor array system of claim 1, wherein said plurality of sensors is
- 2 arranged in a linear array.
- 1 3. The sensor array system of claim 1, wherein said plurality of sensors is
- 2 arranged in a two-dimensional array.
- 1 4. The sensor array system of claim 1, wherein said plurality of sensors
- 2 comprises sensors capable of transmitting and receiving electromagnetic energy.
- 1 5. The sensor array system of claim 1, wherein said plurality of sensors
- 2 comprises fiber optic light sensors.
- 1 6. The sensor array system of claim 1, wherein the system is designed to function
- 2 as a hit detector for detecting the impact of projectiles.

## Docket No. 1379-0002

- 1 7. The sensor array system of claim 1, wherein said plurality of sensors includes
- 2 first and second groups of sensors, said first group of sensors having a more narrow
- 3 field of view than said second group of sensors. .
- 1 8. The sensor array system of claim 6 or 7, wherein said plurality of sensors is
- 2 arranged around the circumference of a cylindrical object.